

Appl. No. 10/723,912
Amdt. dated January 24, 2007
Reply to Final Office action of August 24, 2006

REMARKS/ARGUMENTS

Claims 1-36 are pending in the present application.

This Amendment is in response to the Final Office Action mailed August 24, 2006.

In the Office Action, the Examiner:

rejected claims 13-24 under 35 U.S.C. §101;

rejected claims 1, 3-8, 10, 13, 15-20, 22, 25, 27-32, 34 under 35 U.S.C. §102 (b);

rejected claims 9, 21, 33 under 35 U.S.C. §103(a); and

allowed subject matter for claims 2, 11, 12, 14, 23, 24, 26, 35, 36 if they are rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant has canceled claims 1, 13, and 25, and has amended claims 2, 14, and 26 to be in independent form including all the limitations of the respective base claims 1, 13, and 25. In addition, Applicant has amended dependent claims 3-5, 7, 9, 10, 12 so that they now depend on allowable claim 2; and amended dependent claims 15-17, 19, 21, 22, 24 so that they now depend on allowable claim 14; and amended dependent claims 27-29, 31, 33, 34, 36 so that they now depend on allowable claim 26. Applicant preserves the right to continue prosecuting the canceled claims in the future. Reconsideration in light of the amendments and remarks made herein is respectfully requested.

Rejection Under 35 U.S.C. § 101

In the final Office Action, the Examiner rejected claims 13-24 under 35 U.S.C. §101 as being unpatentable because the claimed invention is directed to non-statutory subject matter. Specifically, the Examiner stated that Applicant has claimed "a machine-accessible medium including data ..." which is viewed as non-statutory in view of the specification which discloses on page 10 that this medium includes "any medium that can store, transmit, or transfer information" including "fiber optic medium, a radio frequency (RF) link, etc." The Examiner stated that "to overcome this rejection, Applicant must amend the claims to refer only to a machine-accessible storage medium". The Examiner further stated that "amending the specification to remove some (but notably not all) of the matter regarding RF links is not viewed to overcome the rejection. ... Under the interim guidelines, any claim that may be interpreted to claim only the signals, be they propagated by air, electricity, optics, or

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otherwise, is viewed to cover ineligible subject matter.” (Final Office action, page 3, item 8)
Applicant respectfully traverses the rejection for the following reasons.

First, the Examiner already applied the interim examination guidelines recently proposed and still under evaluation, by the USPTO that characterize signal claims as non-statutory subject matter. The USPTO argues that a signal is not a process, composition of matter, machine, or article of manufacture. The signal has “no physical structure” and does not “itself perform any useful, concrete, and tangible result” and therefore is a non-statutory natural phenomenon. “These interim guidelines propose that such signal claims are ineligible for patent protection because they do not fall within any of the four statutory classes of Sec. 101. Public comment is sought for further evaluation of this question.” See Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility, 1300 OG 142 (November 22, 2005).

This proposed USPTO interim guideline on signal claims is still being evaluated, with public comments having been sought for the evaluation. The USPTO recently published the public comments as of August 11, 2006 in response to the *Request for Comments on Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility* published in the Federal Register at 71 Fed. Reg. 34307 (June 14, 2006):

<http://www.uspto.gov/web/offices/pac/dapp/opla/comments/ab98/ab98.html>

Public comments indicate that there is a strong opposition to the USPTO’s proposition. For example, Rick D. Nydegger presents the following comment:

“There are sound policy reasons why a signal or carrier wave used to provide software to users should be treated no differently for purposes of patent eligibility than a computer disc such a CD or floppy disk. It is highly questionable whether a signal or carrier wave is not “tangible” in any event. Simply because one cannot see or touch the medium does not change the reality that such a medium nonetheless is real and is used every day to transmit and download software just as effectively as software contained on a CD. Thus, to deny patent eligibility for such claims is to ignore the reality that such media is most certainly employed in the using and selling of software carried by such a medium, and thus denies claims to a patent owner that would otherwise provide a basis for asserting direct infringement against competitors, thereby relegating such subject matter to assertions of indirect infringement only, with no sound policy basis for doing so. To deny such computer program products of patent protection on

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this basis appears to be exalting form over substance. Moreover, treating so-called "signal" claims differently from other kinds of computer readable media (e.g., that wireless signals are not tangible, and cannot tangibly embody a computer program or process since a computer cannot understand/realize (i.e. execute) the computer program or process when embodied on the data signal) is equally as true for other media such as floppy disks or CDs. Executable instructions on a disk or CD, like those carried by a signal, also cannot be understood or executed until those computer-executable instructions are read from the disk or CD into the computer's RAM. This is no different for a carrier signal, and hence the asserted factual distinction as to "tangibility" simply lacks merit."

Applicant's position is in line with Nydegger's comment. Applicant does not agree with the USPTO's proposition that an electromagnetic signal does not have a physical structure and does not itself perform a useful, concrete, and tangible result. This type of signal does have a physical structure though not visible to the naked eye and does itself perform a useful, concrete, and tangible result.

Second, the USPTO had determined that signal claims are statutory. Before the publication of this proposed interim guideline, training materials distributed by the USPTO to teach how to use the examination guidelines for computer-related inventions in effect since March 29, 1996 (MPEP, Chapter 21, section 2106) included a signal claim example listed as Example 13 under Automotive Manufacturing Plant. The claim example was "A computer data signal embodied in a carrier wave comprising a compression source code segment comprising [the code]; and an encryption source code segment comprising [the code]." The example was accompanied by an analysis of the claim and the signal claim was determined to be statutory subject matter. Furthermore, in Appeal No. 2002-1554 in the case of Ex parte Rice (Application 08/003,996), the Board of Patent Appeals and Interferences reversed an examiner's rejection of signal claims as being directed to non-statutory subject matter under 35 U.S.C. §101, holding that electromagnetic signals, although "transitory and ephemeral in nature", are statutory subject matter.

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Third, numerous US patents having claims explicitly directed to a carrier wave or a signal embodied in a carrier wave have been granted, with issue dates as recent as **October 31, 2006**. The following 7 issued patents are only a few examples:

U.S. Patent No. 7,131,101 (issue date: October 31, 2006), Claim 3:

3. A carrier wave for correcting a fabrication layout corresponding to an original fabrication layout for proximity effects, the carrier wave carrying instructions to cause one or more processors to perform: executing a routine implementing an inverse proximity effects model for a segment of an edge in an original fabrication layer, the inverse proximity effects model including a lookup table for each kernel function, the lookup table including an amplitude contribution value at a position in the lookup table related to an edge position in a printed feature layer; and determining a correction for the segment based on a difference between an output from the inverse proximity effects model and an initial position for the segment in the fabrication layout.

US Patent No. 7,130,596 (issue date: October 31, 2006), Claim 30:

30. A computer data signal embodied in a carrier wave comprising: a mode selection source code segment comprising means for selecting a mode of operation for the transmitter; and an adjustment source code segment comprising means for adjusting the operating current of at least part of the transmitter in response to selecting the mode of operation; wherein the adjustment source code segment further includes: determining source code segment comprising means for determining a base linearity responsive to the selected mode of operation; adjustment source code segment comprising means for adjusting the base linearity responsive to a desired transmit power; and setting source code segment comprising means for setting the operating current responsive to the adjusted base linearity.

US Patent No. 7,130,368 (issue date: October 31, 2006), Claim 7:

7. A computer signal embodied in a carrier wave readable by a computing system and encoding a computer program of instructions for executing a computer process for performing the method recited as in claim 1.

US Patent No. 7,127,275 (Issue date: October 24, 2006), Claim 12:

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12. A computer data signal embodied in a carrier wave, said computer data signal including at least one computer program for providing automatically populated display regions showing representations of wireless devices in a graphical user interface stored thereon, said computer program comprising: program code for discovering at least one wireless device in a wireless communication network; program code for generating a physical space display region, wherein said physical space display region includes a graphical representation of a physical space in which said wireless communication network is deployed; program code for generating a wireless device display region visually external to said physical space display region; and program code for generating, within said wireless device display region, at least one graphical wireless device representation corresponding to said at least one wireless device discovered in said wireless communication network.

US Patent No. 7,089,168 (issue date: August 8, 2006), Claim 4:

4. A computer data signal embodied in a carrier wave for use in modeling a system with a diagrammatic language, comprising computer instructions for: describing said system using said diagrammatic language to form a diagram; and parsing said diagram to form a model of said system, said parsing comprising historical resolution of state; wherein said language comprises recursively nestable likeboxes, recursively nestable linkboxes, and implicit likeboxes.

US Patent No. 5,877,775 (issue date: March 2, 1999), Claim 15:

15. A computer data signal embodied in a carrier wave and representing a sequence of instructions which, when executed by a processor, cause the processor to perform the steps of:

generating a hierarchical data structure, the hierarchical data structure comprising a plurality of nodes, each of which represents a data item;

assigning each node a pair of X and Y axis coordinates in a two-dimensional grid having X and Y axis which are perpendicular, so that nodes on a common level each have a common X axis coordinate to define a Y line;

defining a Z axis with a predetermined angle relative to the X axis;

for each level, defining a Z line which is parallel to the Z axis;

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for each level, mapping each node location on the respective Y line to a corresponding location on the respective Z line so as to recalculate at least the Y coordinate of each node;

displaying a node representation of each node at a respective first point defined at the X coordinate and the recalculated Y coordinate on a display unit; and

displaying a respective connector representation between each parent and child node representation on the display unit.

US Patent No. 5,850,449 (issue date: December 15, 1998), Claim 20:

20. A computer data signal embodied in a carrier wave, comprising:

instructions for receiving objects transmitted by network entities, wherein at least a subset of the received objects each include source and destination methods and data associated with the source and destination methods; and

an incoming object handler to handle the subset of the received objects, the incoming object handler including a source and destination verifier to execute the source and destination methods of each received object with their associated data so as to verify the source and destination of the received object.

No legal authority has found the specified claims in the above issued patents to be non-statutory for being directed to a signal and has rendered them invalid for that reason.

Accordingly, Applicant submits that claims 13-24 are statutory under 35 U.S.C. §101. However, in order to obtain a timely Notice of Allowance for this case, Applicant has amended claim 14 to limit claim 14 and its dependent claims to a machine accessible storage medium. In addition, Applicant has amended the Specification to re-insert what was deleted in Applicant's response of June 17, 2006, namely, a radio frequency (RF) link.

Allowable Subject Matter

Applicant notes with appreciation the Examiner's indication of allowable subject matter. The Examiner objected to claims 2, 11, 12, 14, 23, 24, 26, 35, 36 as being dependent on a rejected base claim, but indicated that the claims would be allowable if they were rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Applicant has canceled the rejected independent claims 1, 13, and 25. Applicant has amended claims 2, 14, and 26 to be in independent form including all the limitations of the respective base claims 1, 13, and 25. In addition, Applicant has amended the dependency of the remaining dependent claims so that they now depend on an allowable base claim.

Accordingly, Applicant respectfully requests that newly amended independent claims 2, 14, and 26 and all amended claims that depend therefrom be allowed.

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Conclusion

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

UNISYS CORPORATION

Dated: January 24, 2007

By



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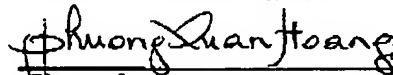
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